THE BEE,

OR

LITERARY WEEKLY INTELLIGENCER,

FOR

WEDNESDAY, JANUARY 23. 1793.

ON THE SWORD FISH.

SIR, *To the Editor of the Bee.*

IF the following ſhort account of that remarkable animal, the broad finned sword fiſh, merits your approbation, I would be glad if you would give it a place in your excellent miscellany.

Amongst all the voracious animals that inhabit the Indian and Pacific Oceans, this is the most dreadful. From the appearance of the long and ſharp pointed proceſs of the head, it appears to be very nearly allied to the sword fiſh, so well known to naturalists. It differs, however, in many particulars, and is plainly a different species. Its usual length is twenty feet; but it is often found longer. The first description we have of it, is in Marcgrave's History of Brazil. The general colour of the fiſh, is a silvery bluiſh white, except on the upper part of the back. The head and the tail are of a deep brown. The back fin is of a pale brown, finely spotted with marks of deep black; the ſkin is quite smooth and has no scaly appearance. Two or three

years ago, a letter was sent to the president of the Royal Society of London, from the captain of an East Indiaman, with an account of the remarkable strength which this fish possesses. The bottom of his ship having been pierced completely through by a fish of this species, and the fish killed by the violence of the shock. It was singularly lucky for the vessel, that the fish was killed, otherwise, if it had been enabled to withdraw its snout, the vessel would have inevitably sunk. The wood, together with the snout or sword of the fish, embedded in it, is preserved in the British museum. This fish is not confined to the Brasilean and East Indian seas, but is also found in the northern ocean. It is a great enemy to whales, with which it has frequent combats. What is very remarkable, Pliny mentions the circumstance of their transfixing vessels, which has been regarded as one of those exaggerations so frequent in the works of the ancients. P. H. N.

N. B. Mr Editor, by next week, I will send you a painting and description of a very rare bird, the American ostrich *.

THE TRAVELLER. No. V.

OBSERVATIONS AND OPINIONS OF J. W. SPENCER.

Continued from vol. xii. *p.* 325.

Doncaster, England.

I was just setting out from Ferrybridge yesterday afternoon, when a chaise driver came and told me

* The Editor will be much obliged to this correspondent for the account here promised, with his first convenience.

that he had an empty chaise to take to Doncaster, and that, if I was going that way, I might have a ride upon very easy terms. I aſked him what his fare was;—he said I had the appearance of a gentleman, and that he would leave it to myself. Of a gentleman! I replied;—how came you to imagine that any gentleman would bribe a servant to cheat his master? I said this surlily, and the man went away. He had scarcely quitted me, when I bethought myself that I would very likely see something new if I accepted his offer; so I called him back, and promised to go. He overtook me before I got out of the town, and I stepped into the chaise. Before we had gone half a mile, we came up with a woman who had a child in her arms; and a little way after, with a soldier who was on furlough, going to see his relations at Grantham. They were both admitted into the carriage. How would I have looked; or what could I have said, if the owner of the chaise had met me in this awkward situation? Thou, my dear fellow! thou, whose generous soul never stooped to do a mean action, must be a stranger to such feelings as mine were. However, if contempt of myself, and numberleſs resolutions never to offend again in that way, can atone for my *faux pas*, I owe nothing on that score.

The woman left us at *Robin Hood's well*, half way to Doncaster. The driver not daring to carry us into town, dropped the soldier and me at a small public house at the west end of the bridge. He said I might lodge there very well; told the landlord I was a mighty quiet civil gentleman; and desired he

would take good care of me. The soldier joined in recommending the house, and I was prevailed on.

Squire C——'s servants were here spending the evening, after a remarkably long hare chace, which they talked over an hundred times with our host, who in his younger days, had been huntsman to the duke of Kingston. We joined liquors with them, and the pot went briſkly round.

It has ever been the laudable practice of landlords of this claſs, to sit down with their guests, to torment them with their impertinence, and to do all in their power to quicken the circulation of the tankard. When it becomes empty, which, as they are frequently bleſsed with capacious bellies, generally happens in their hands, they fill it without being deſired, and chalk it down with great *sang froid.* Wide as the word is, I'll venture to say, that there is not in all England, a man of the profeſsion better versed in these little arts, or who can empty a tankard with more dispatch, or fill it with a better grace, than this same Tom Shirley near the bridge of Doncaster.

When the servants were to depart, it became neceſsary to count our scores. The soldier pulled out his purse;—it might contain about a crown. I saw that his ſhare would sit heavy on him; and I told the landlord that we would pay our part with our bill in the morning. The servants left us, and Shirley preſsed them to take his pot after they were on foot. The soldier and I supped together, and the landlord helped off with our ale. He has done it so often, and does it with so much unconcern, that I dare say he thinks there is nothing amiſs in it, if he

thinks at all about the matter. I ordered a little punch, and made the soldier drink with me. The fellow was extremely modest and unaſsuming. I saw he was uneasy; and being afraid that he would not sleep well with the thoughts of the bill to discharge in the morning, I called for it now and paid the whole. He did not say much, but his looks thanked me.

At the Revolution the pay of our armies was settled at what it is at present. As refinement and luxury of all kinds have greatly increased since that; and as all ranks have changed their way of living; and the reward of labour has been nearly doubled; ought not the pay of our soldiers to be increased? There is no neceſsity for increasing the salary of any office, while fit persons are willing to discharge its duties upon the old terms. If exciseable commodities, and a few other articles, are dearer, some are cheaper; the price of the neceſsaries of life is no higher; and officers and soldiers would find their pay fully sufficient for their maintenance, would they live as their predeceſsors did an hundred years ago*. In most other cases, the ability to support it has preceded the alteration in the mode of living; and ensigns and lieutenants have themselves to blame for living with men of fortune, where their daily pay is barely enough to procure them a comfortable dinner.

While we were at breakfast next morning, the driver called to acquaint us that the coach had come in empty, and that we might go a stage or two with him. I positively refused to go; but the soldier

* This is a very disputable aſsertion, *Edit.*

not being so scrupulous, made a bargain upon the spot, and went away. In half an hour he returned with the sad news that he had been disappointed of his ride by one of the proprietors arriving from the country in a post chaise, and taking a seat to Barnaby Moor. His road and mine lay together. He had come back to walk with me, and offered to carry my ſhirts. I liked him for his gratitude.

Boroughbridge.

I had walked from North Allerton, and was much fatigued. I went into the Angel inn, called the waiter, and aſked for a room. The fellow came ſlowly, wiping a glaſs all the way. He looked earneſtly at me, and turning half round, "I have no rooms, (he ſaid,) but if you please, Sir, I will ſhow you into the kitchen." Had I taken half a ſecond to conſider of it, I would have had no objection to the propoſal. It was the folks in the kitchen I wanted to ſee and converſe with. But ſuch is the difference between going into a kitchen, and being ſhown into one, that my pride got up in a moment, and I walked off.

When he was a young man, lord G———ne, on his way to and from London, was wont to ride on the top of the ſtage coach, in order to have a better view of the country, and to drink his bottle of claret at dinner and ſupper. This made folks wonder. Had his deſign been like mine, to ſee the manners of the lower ranks, he would have come better to his purpoſe by calling for a pot of ale.

I amuſed myſelf in the church yard till it was almoſt dark, when I went to the King's Arms inn,

walked into the kitchen without ceremony, sat me down, and called for a pint of ale. A miller, two graziers, and a butcher, were sitting drinking. I took up a pipe, and listened to their conversation. I soon joined them, at which they expreſsed much satisfaction; and we were going to be very merry, when the landlord came down, and politely inquired what I would choose for supper, and desired me to walk into a parlour where there was a fire.——'Tis flattering to be thus distinguiſhed when unknown. I thought it a debt due entirely to myself, independent of every extrinsic circumstance, and I was mortified when at breakfast next morning with the hoſtes, I learned that I owed it to my linen. Soon after I came in, I gave my two ſhirts, which had been waſhed the evening before, to the chamber maid to be better dried. She seeing them to be very fine linen, had carried them to her miſtreſs, who, noticing the marking, aſked to whom they belonged. The girl (a very pretty one by the bye) told, and was sent to view me more narrowly. Upon her report the innkeeper came in person, and took that notice of me I have just mentioned. I begged of him to sit down for a little. The miller led him aside, and they whispered together.—I hate to be gazed at; and the ale being out, and the miller becoming very inquisitive, I suffered myself to be ſhown into a parlour, and invited the landlord to sup with me. He excused himself as his wife was quite alone; so I aſked her too.

I dare say travellers among the ancient Greeks and Romans, who had no public inns, went to pri-

vate houses without any of those unpleasant feelings that a modern would experience in such a situation. From Lot and Abraham entertaining the angels, it appears that they were unknown in eastern countries too, in these early times; unleſs we suppose them to have been innkeepers, which is an opinion not advanced by any commentator; at least as far as I know. W. E.

AN ANECDOTE.

SOME time after the conclusion of the late war, a young American was present in a Britiſh playhouse, where an interlude was performed in ridicule of his countrymen. A number of American officers being introduced in tattered uniforms, and barefoot, the question was put to them severally, "What was your trade before you entered into the army?" One answered a taylor, another a cobler, &c. The wit of the piece was to banter them for not keeping themselves clothed and ſhod; but before that could be expreſsed, the American exclaimed from the gallery, "Great Britain beaten by taylors and coblers! Huzza!" Even the prime minister, who was present, could not help smiling amidst a general peal of laughter.

ANOTHER.

A COXCOMB aſked a stuttering barber's boy, "Did you ever ſhave a monkey?" 'No, Sir, (said the boy,) but if you will s-s-s-sit down, I'll t-t-t-try.'

A TABLE OF GEMS CONTINUED.

Class second.

THE RUBY.

The CARBUNCULUS of the ancients.

HARDNESS from 17 to 13; SPECIFIC GRAVITY from 4,2 to 3,4.

Varieties.

The DEEP RED or oriental. [The PURPLE RED oriental of the jewellers, is the carbunculus of Pliny.] PALE RED. SPINEL, a bright red. BALLAS, pale violet red. RUBICEL, redish yellow.

Analysis.

* DEEP RED, H 17; Sp Gr 4,2; Arg 40; Sil 39; Cal m 9; Ir 10.*
* PALE RED, H 16; Sp Gr 3,5.
SPINEL, H 13; Sp Gr 3,4.

Form.

The ruby is generally octoedral, but sometimes it is found in irregular hexagons. Wallerius and Rome de Lisle assert that the best rubies, sapphires, and topazes, are but the same stone, of different colours, a fact which the similitude of their component parts seems to confirm, as well as their crystallization, from which alone, the above two writers formed their opinions. The Siberian aqua marine offers a strong fact on their side; as we have it of a green, a blue, and a yellow colour, all equally brilliant

* Bergman.

and fine. Rubies are made artificially, by gradually heating, in a crucible covered with wood aſhes, the Brazil topaz till red hot, which gives it a fine ruby colour.

Structure, Properties, &c.

Texture laminar. Electric on friction. The true ruby does not lose its colour in the fire, although the baſtard or rubicel is ſaid to loſe it. It does not melt *per ſe*, even in the focus of a large burning glaſs, as authors aſſert; but we ſuppoſe they were unacquainted with the power of Mr Parken's lens, which vitrifies, and even calcines the ruby. It melts with dephlogiſticated air, even when only uſed with a blow pipe, as Dr Franklin demonſtrated. Borax and microcoſmic ſalt effect its fuſion.

Where found.

The true ruby is found in the Eaſt Indies and Brazil, ſometimes in a red ſand of certain rivers, ſometimes adhering to red coloured rocks, and ſometimes in a hard green clay. The ſpinel, ballas, and rubicel, are found in Brazil, Hungary, Sileſia, and Bohemia. The carbuncle is found in great plenty on the ſea ſhore near Ely in Fifeſhire, Scotland. There is alſo a ſtone which comes near to the ruby found near Portſoy, Banffſhire, and at Inverary, Argyleſhire, Scotland.

Largeſt.

The largeſt ruby was in the poſſeſſion of the Great Mogul, of a round form, weighing about two ounces and

a half. He had about 108 more rubies in his throne, from 100 to 200 carats each, before the invasion of Nadir Shah, or Couli Khan. Ruſsia has as yet discovered no rubies in Siberia, which produces so many other gems.

Value and Rarity.

A ruby of one carat, is worth ten guineas; one of two carats, forty guineas; one of three carats, 150 guineas; and those of six carats above 1000 guineas.

N. B. A ruby above three carats is worth more than a diamond of the same weight. *Ballas* worth 3s. *per* carat. *Spinel*, half as much as a diamond.

Claſs third.

SAPPHIRE.

The SAPPHIRUS of the ancients.

HARDNESS from 17 to 16; SPECIFIC GRAVITY from 4,7 to 3,8.

Varieties.

DEEP BLUE, PALE BLUE, and MILKY BLUE like the OPAL.

Analysis.

* DEEP BLUE, H 16; Sp Gr 3,8; Arg 58; Sil 35; Cal 5; Ir 2.*
* PALER BLUE, H 17; Sp Gr 3,8.
* WATER SAPPHIRE, H 17.
PUY SAPPHIRE, Sp Gr 4,7.

Form.

The sapphire is commonly in two oblong hexagon pyramids, joined at their base, and pointed at top; sometimes also in hexagonal columns.

* Bergman.

Structure, Properties, &c.

Texture laminar. Electric on friction. The oriental does not lose its colour in the fire, like the softer and inferior sorts; nay, even those of Puy, in Auvergne, and of the Brazils, although in every other respect of hardneſs, form, and specific gravity, they equal the oriental, do not preserve their colour in the fire. It does not melt *per se*, but is affected by the same fluxes as the ruby. The sapphire is preferable to the ruby for jewelling clock work, from its equal hardneſs, a quality not to be found with certainty in most of the other varieties except the oriental.

Largest.

Authors make mention of no remarkable sapphire either for size or value, except one belonging to the king of France, with a strip of fine yellow topaz in the middle. This is another proof of Rome de Lisle's hypothesis mentioned in the article ruby.

Where found.

The finest sapphires, like most of the gems, come from the East Indies. Ruſsia does not produce the sapphire. In Scotland, they are found of a hardneſs and lustre equal to the oriental, both light and deep coloured, at Benachie, and Invercauld, Aberdeenſhire, Portsoy in Banffshire, and many other places. Mr Deuchar, seal engraver in Edinburgh, has in his poſseſsion, a beautiful sapphire, which was found in a double crystal. On one of these is cut a head, which was effected with the greatest difficulty, on account of its hardneſs; the other is cut into facets, and has a fine water, and great brilliancy.

How valued.

A fine sapphire of ten carats, L. 50. One of twenty, L. 200.

Under ten carats it may be valued by multiplying the carat at 10s. 6d. into the square of its weight.

Class fourth.

TOPAZ.

The CHRYSOLITHUS of the ancients, according to Pliny.

HARDNESS from 15 to 114 SPECIFIC GRAVITY 4,2 to 2,8.

Varieties.

GOLD COLOUR, ORANGE, YELLOW, PALE YELLOW, WHITE and SMOKY.

Analysis.

YELLOW SAFFRON, H 15; Sp Gr 4,2; Arg 41; Sil 21; Cal 20; Ir 18.

* WHITISH, H 14; Sp Gr 3,5.

BOHEMIAN, H 11; Sp Gr 2,8.

SAXON TOPAZ, Sp Gr 4,2; Arg 46; Sil 39; Cal 8; Ir 6†.

Form.

The topaz is commonly in prisms of six or eight sides; or in parallelopipedal or cubic forms; sometimes striated. They are terminated by two tetrapedal pyramids with smooth triangular faces.

Structure, Properties, &c.

The texture is laminar. Electric on friction. The occidental are said to lose their colour in the fire; and the Brazil topaz to acquire a fine ruby colour, as mentioned in the article ruby. It does not melt *per se*; but borax and microcosmic salt promote its fusion.

* Achard. † Bergman.

Where found.

They are found in India, Pegu, Ceylon, Arabia, Egypt, and Brazil. These are said to equal the ruby and sapphire in every respect; and differ from them only in colour. Occidental are found in Saxony and Siberia, as hard as the oriental; in Bohemia, Scotland, *&c.* Ruſsia produces a variety; but the best are found in the mountain Adunſhollo, near the river Onon, in Dauria; particularly the remarkable hard quadrangular species,—certainly one of the best in Europe. It is distinguiſhed among the Ruſsian stones in having the sides of the prisms poliſhed like glaſs, and presenting, in some cut specimens, the appearance and texture of the Aventurine. As it merits to be analysed, the author has sent a fine prism to an able philosopher for that purpose. In Scotland the topaz is found in Strathspey, and Invercauld Aberdeenſhire; Caringoram, isle of Arran, Buteſhire, *&c.*

Largest.

The largest rough one is in the poſseſsion of the prince of Orange. It is an oval oriental topaz, seven inches long. Cut,—the Great Mogul poſseſses one of 157 carats; and a jeweller in St Peterſburg, one of a square form, two inches and a half, by two and one third thick.

How valued.

The oriental topaz is valued by multiplying the square of its weight by fifteen or sixteen ſhillings. The occidental by five or six ſhillings.

Claſs fifth.

THE HYACINTH.

HARDNESS 15; SPECIFIC GRAVITY 2,8.

Varieties.

YELLOWISH RED, CHRYSOLETRE, AMBER COLOUR, ORANGE ORIENTAL, WHITE.

Analysis.

REDISH YELLOW, H15.
CHRYSOLETRE.
ORANGE ORIENTAL, Sp Gr 2,8: Arg 40; Sil 25; Cal 20; Ir 13 *.
WHITE cruciform Saxon, Arg 20; Sil 44; Bar 2,4 †.

Form.

The form of the hyacinth is commonly that of a prism, with five, six, seven, or eight sides, pointed at both ends, with four facets; but sometimes it is found in the globular polygon form of the garnet, only with its angles more obtuse. There are two sorts of gems sold by jewellers as hyacinths; the first is the true one, very hard and brilliant, which seems only a variety of the topaz, higher coloured, or more loaded with iron, as their analysis demonstrates. The other a garnet of the hyacinth colour, but inferior in lustre and hardneſs.

Structure, Properties, &c.

The texture is laminar. Electric on friction. It either becomes paler, or loses its colour altogether, in the fire. Melts *per se* in a wind furnace in two hours, according to Mr Achard. The spurious hya-

* Bergman. † Born.

cinth or garnet, melts readily into a slag, in a common furnace, a sufficient distinction between them.

Where found.

They are found in Arabia, Calicut, and Cambaya. The occidental in Poland, Bohemia, and Saxony. The hyacinth garnet, in Spain and Groenland. Ruſsia produces also this gem in the mountain Adunſhollo in Dauria, so fertile in precious stones. Born has just given us a new species of cruciform white hyacinth, found in Saxony. The chrysoletre is a variety of the hyacinth, (some say a spurious one,) so called from its resemblance to amber.

How valued.

Wallerius values the oriental hyacinth at from twenty to fifty dollars *per* carat, according to lustre, colour, &c

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HINTS ON MACHINERY.

SIR, *To the Editor of the Bee.*

I WAS much pleased with your ingenious explication of the chain with buckets*, to the purpose of creating circular motion, where there is an high fall of a small rill of water. I was only astoniſhed (as we always are upon the discovery of things that on explication appear obvious) how so simple a contrivance ſhould so long have escaped observation; and this I conceive to be the highest commendation that can be bestowed on any new invention.

Your paper suggested several thoughts to me which I have thrown together;—if you reckon them worth insertion, you are welcome to them. I am

* Bee, vol. xi. p. 150.

but a novice in mechanics, and I could not on my own judgement say whether they are so or not.

From what you have observed, I am convinced that the impetus of water is a moving power of little importance in proportion to its weight: and of the water wheels now in use I therefore conclude, that the bucket wheel gives more force from equal quantities of water passing in equal times. Of the bucket wheels, too, I would prefer those which are so constructed as to admit the water immediately into the bucket which is in the direction of the horizontal diameter of the wheel, where its weight must have most energy, in virtue of the longest lever. I think, however, I have remarked, in some overshot bucket wheels, that the water is immediately admitted into that bucket which has just passed the perpendicular of the wheel. Perhaps an idea is entertained of thereby accumulating more water upon the descending side of the wheel; though this conception must certainly be erroneous, as will evidently appear from this simple consideration, that, of necessity, every perpendicular, revolving in a circle, must become an horizontal in turning round one quarter of the periphery of the circle. Supposing, then, the buckets to stand perpendicular when they are filled, they must gradually slant towards an horizontal direction, and consequently gradually empty themselves as they turn round, so as to become horizontal, and consequently empty, by the time they have traversed the quadrant of the circle. It therefore appears to me impossible, by any contrivance, to load with water more than one quarter of the cir-

cumference of the wheel at one time. This being admitted, it must certainly be the best mode to have the filled buckets always at the horizontal diameter, where their weight has most force, and where they will continue most full, in proportion as their position is most favourable for energy; rather than to have them filled where their weight has least force, with their weight gradually diminiſhing, in proportion as they come into succeſsive positions where their weight would have been of more avail.

In every mode of construction of wheels with buckets, it is, however, evident, that there must be a considerable waste of the power of the water paſsing in a given time. 1*st*, In the loſs of the water, from the buckets emptying themselves, in proportion as they recede from their perpendicular to their horizontal direction. 2*d*, In the diminiſhed action of the water which remains in the buckets, in proportion as they are nearer to the perpendicular than to the horizontal diameter of the wheel. These two circumstances *of inaptitude to the production of the full effect of the given water*, are common to every used species of the bucket wheel; and where the water is conducted upon the wheel by a trough, there is a *third* loſs of such water as paſses through the interstice, which must neceſsarily be left, to allow of the motion betwixt the trough and the wheel.

In your most ingenious contrivance of the chain with buckets, none of these loſses are sustained. The whole water that paſses is brought to act upon the chain; except the inconsiderable spurt by the water daſhing upon the thin edge of the bucket

which comes in to be filled; and this action is uniformly directed to the place where its energy is greatest. The only loss of power is that which arises from the friction of the chain upon the wheels, at the top and bottom of the fall of water *; and this I am convinced would be trifling in comparison of the gain in every other respect. I doubt not but that by interposing your chain betwixt the water and the wheel, more force might be obtained than by even the bucket wheels in use, in any given situation where such wheels are used. As to the situation of small rills and high falls, undoubtedly a very great moving power may be commanded by your contrivance, where none could be obtained by the methods which have hitherto been devised.

I waited with impatience for the farther suggestions you promised upon the mode of applying the power of water where there is a current merely, but no fall, and, mean while, was forming my own conjectures upon the subject. Your proposal did not occur to me, though I am convinced it would answer in the case of rivers, in flat countries, as you suggest, and streams from lochs, which are not subject to sudden rises; and I doubt not but the immense force procured as an operating power, might compensate the expence of such extensive machine-

* The ingenious writer, by looking back to the plate, vol. xi. p. 250. will observe that there can be no friction of the kind he here mentions, owing to the joints of the chain being of the same length with the distance between the bars of the wheels; so that the chain never slips upon it. The small friction that will arise from the bending of these joints, deserves, in *practice*, to be considered as nothing. *Edit.*

ry. What occurred to me was but a very humble proposal in comparison. It was, merely to apply to the water wheel the principle commonly adopted by those who have attempted the *perpetuum mobile* *, which I shall endeavour to explain.

Let the water, then, be conducted to the wheel by a conduit, provided with a sluice, that you may always have it in a regulated quantity. Let your wheel be made of a smaller diameter; but let the *awes*, as they are vulgarly named, or float boards, be fixed upon arms that are fixed into the wheel, of two, three, or four feet in length.

Let these arms be provided, each with two or three joints †, which might open towards the water

* The only principle upon which I have had occasion to see the *perpetuum mobile* attempted, is *the recurring overbalance of the descending side of the vertical wheels*; and this endeavoured to be effected by hollow tubes in the wheel, extending as radii from the center to the circumference, in which are inserted cylinders of wood, which project outwards, or retire in the descent and ascent of the wheel; or else moveable balls, or quicksilver, are inclosed in the tubes for a similar purpose.

† An intelligent farmer of my acquaintance tried the experiment of flying, by means of canvas wings stretched upon wooden ribs, provided with joints of this kind, which could shut close and open to the straight, like a man's hand. In raising the wings, they shut close, so as to meet with no resistance from the air. In giving the stroke, they expanded to a large surface. He succeeded so far as to raise himself off from the ground by a stroke of the wings, but he came down always before he could fetch a second. Oars might be constructed to advantage in this way. They would operate like the webbed feet of water fowls, without the necessity of raising them from the denser medium to the more rare, to diminish the resistance in fetching the stroke. A boat might be constructed in which a man might stand upright, the boat entirely under water, and the man sunk breast deep. He might work it in any direction with oars which would emit no sound, nor be visible to the eye; a narrow wooden trough might be fastened to his breast, to push before him, where he might deposit his

as the wheel descends, admitting the arms to stretch out to their full length, but not to bend backwards; and closing so as to admit the arms to fall close upon the wheel on the ascending side. It is evident upon this construction, that, when the wheel is put in motion, the arms upon the descending side will begin to fly out from the time they pass over the top of the wheel; that they will be stretched out at full length when they reach its horizontal diameter; and continue so till the awes, or float boards, have received their stroke from the water; that on rising from the water they will bend inwards upon the rim of the wheel, till they arrive at the top, when they will again begin to fly out. The arms on the upper quadrant of the descending side, contained between the vertex and horizontal diameter of the wheel, would be always found in various stages of flying out *; and the arms on the opposite quadrant on the ascending side, contained betwixt the bottom and horizontal diameter of the wheel, would be retiring inward in the same proportion; so that these two opposite quarters of the wheel would be exactly equipoised. But in the undermost quadrant on the descending side, the arms would be all stretched to their full length; and in the uppermost quadrant of

firelock and amunition, &c. &c. As to flying, I would suggest an umbrella with joints of this kind, as requiring least weight in the apparatus, and less dexterity in the management. Perhaps it would not be amiss to add a few bladders of inflammable air to diminish the specific weight of the body.

* Is there not reason to suspect, that the arms would begin to fall open only after they descended below the horizontal radius? *Edit.*

the ascending side, the arms would be all lying flat upon the wheel. Here then a great overbalance of weight is procured, which is constantly applied to the descending side.

Such would appear to be the situation of matters, when we attend merely to the weight of the arms and their float boards.

When the motion of the wheel comes to be very rapid, a centrifugal force is acquired, which might cause all the arms to fly round at full stretch. This force may be so great as to make their weight as nothing. It must be observed, however, that the arms are always in readineſs, so to speak, to interpose their weight, as a moving force, wherever the centrifugal force ſhall begin to flag; let this cease to be an equipoise to their weight in the smallest degree, the arms will immediately bend in a small degree inwards on the ascending side of the wheel, and an overbalance of weight will consequently be derived, as already explained, to the descending side. What although this overbalance be trifling? A very small force is of great account when applied to continue a motion which already exists. Exactly in the same manner, the water comes to lose a great part of its action against the wheel; the action of the water depends entirely upon the exceſs of its velocity over that of the circumference of the wheel; for suppose the velocity of the circumference to exceed that of the water, the *awes*, instead of being preſsed by the water, would overtake it and puſh it forward; and the water would resist the wheel. If their velocities were equal, they would slide on at equal rates when in contact, and neither would preſs on, or puſh forward the o-

ther. In proportion then as the velocity of the wheel increases, in the same proportion does the action of the water diminish, till it may be supposed reduced almost to nothing. As this, however, does not prevent the water from being necessary to the commencement and continuation of the motion, so neither does the supposition of an acquired centrifugal force which shall overbalance the weight of the arms, prevent us from concluding, that such a construction of a wheel might be of advantage, both in facilitating the first acquisition of motion, and in reiterating it when it begins to decrease. I shall not swell this paper by any additional observations. I am one of your constant readers.

C. F.

Manse of Newlands,
Nov. 2. 1792.

A CRITIC CRITICISED BY ARCTICUS.

For the Bee.

MR EDITOR,

I PRESUME it is permitted when one of your correspondents has amused himself with attacking a favourite national author, without giving valid reasons for so doing, that another may amuse himself in an answer containing as few. However, let me whisper you, Mr Editor, that this species of warfare may at the same time produce no bad variety, in the midst of so much solid matter; as we are not always displeased at occasionally falling upon a light airy paper, not overloaded with reasons, during the process of digestion, whilst lolling in our arm-chairs

after dinner, in compliance with the wise proverb of our ancestors.

I give up, then, to your hard-named correspondent, Yackstrotte, (vol. viii. p. 218.) both the public and Pope; nay, the devil and the pretender into the bargain, if he pleases, as the old attendants given by the good people of England to his Romish namesake, in hopes Mr Yackstrotte will only spare poor Shakespeare, the favourite of either side the Tweed; at least till he has found time to give us a few reasons for putting him into such company. Surely the few bad lines he accuses him of, is not sufficient cause of condemnation in the land of liberty, whatever it might have been on the continent during the reign of the bastile.

But far be it from me to say, that all three are not lawful game, as every thing is in your happy island; although I think they must be brought down with something better aimed than a few random shot, which might equally have hit any straggling author in the language; for I declare on my own part, I have not been able to discover where, or wherefore, this blunderbush was pointed.

First, as to Pope, that sportive gentleman, himself, hung up to public grin so many of the king's liege subjects, embalmed in caustic wit, that he must have expected one day or other the *lex talionis*, either in this world or the next, so I leave him to his fate.

Secondly, as to the public. As every individual that compose it, will naturally except himself from Mr Yackstrotte's criticism, whilst he admits the

justice of it on all the rest; it must of course fall only on the common scape goat, *nobody*, and let somebody undertake his defence.

But lastly, with regard to our adorable bard, Shakespeare, if he ſhould be validly attacked, which I do not take upon me to say he is, surely his swarm of commentators, critics, correctors, and admirers, whose ſhrewdneſs, sagacity, and critical acumen, have swelled every play into a volume, will rise in his defence, long before one can be set up at the north pole; so that I am likely to have little more to do in this buſineſs, than just to agree with you, Mr Editor, *that there is much merit in a man judging for himself, instead of following servilely the public opinion;* and here candour obliges us both to acknowledge, that to this species of merit no writer for the Bee has an equal claim with Yackstrotte, and none so little, (on the present point in dispute) as

ARCTICUS.

You may smile, if you please, at my digestive epistle; but the art of saying *nothing* is not so easy as you think, and that your two last mentioned correspondents can testify.

AN ANECDOTE.

AT a musical country meeting, a vocal performer who was rather ſhabbily dreſsed about his *under garments*, being complimented on the power of his voice, vainly threw up his head, and replied: "O Lard, Sir, I can *make any thing of it!*" 'Can you, indeed?' said a wit in the company: 'Why then I'd you advise to make yourself *a pair of breeches of it.*

POETRY.

ODE WRITTEN BY A NATIVE OF DAMASCUS.

[Faithfully translated.]

For the Bee.

HAIL, the banquet, 'tis divine!
Here the streams of rosy wine,
Such as friendly souls desire,
Warm the lovers am'rous fire.

Fill'd with friendſhip, full of mirth,
Rich libations ſprinkle earth;
Crims'ning high the lucid clay,
Night reflects a riſing day.

Goblets, vaſes, mighty bowls,
Pouring nectar o'er our ſouls,
Sparkle to each raptur'd eye
Bright as Zodiac's ſtarry ſky.

Ev'ry beauty, all the loves,
Trip it o'er ſweet ſcented groves;
Mirth alone is welcome here;
Sorrow comes, and dries the tear.

Sprightly ſong, and dulcet ſound,
Freely wander wide around;
Song has charms, and muſic pow'r,
Soft to huſh the tempeſt's hour.

Moping grief, and aching care,
Inſtant quit their ſombre air.
All is pleaſure, all is mirth!
Hither come, ye ſons of earth.

Yes the dervise here may come,
Let him make with us his home;
Soon his boſom, taught to feel,
Shall to wine and beauty yield.

THE COQUETTE.

BY DR HOULTON.

CORINNA, aged forty-five,
Did not of marriage yet deſpair,
Tho' ſhe her charms had kept alive
A dozen years by art and care;

Full oft she many a gen'rous youth,
Had trick'd and treated with disdain,
But now she wish'd in earnest truth,
To add a link to Hymen's chain.

To Strephon, then, who, day and night,
Did heretofore sincerely woo,
She condescended thus to write,
'You've conquer'd, Sir, I yield to you.'

Strephon whose mind sweet peace possess'd,
Who long had ceas'd to love and sigh,
Gave quick for answer, thus address'd,
"Read it, Corinna, and apply.

"The rising sun I've oft admir'd,
"Till pleasure has to rapture grown;
"His noontide beams my breast have fir'd,
"With glowing bliss to words unknown.

"But Sol, so bright, at eve declines,
"When all men see his course is run,
"With ruddy face still, still he shines,
"But ah! his heat and beams are gone."

She read—she paus'd!—Reflection's glass,
Quick as the forked lightnings dart,
Show'd her with painted haggard face,
O sad conviction to her heart!

No more at balls or routs she's seen,
No more each borrow'd art she tries;
A victim now to heps and spleen,
All day she hides, all night she sighs.

Then let not slip ye lovely fair!
Youth's prime, and beauty's blissful date,
To gen'rous lovers be sincere,
Lest thou should meet Corinna's fate.

TO VIRTUE.

Ev'ry ill of mankind's lot,
From the palace to the cot,
Rises from the wretched mind,
Where with vice strong passion's join'd;
These to check we go to school,
But return without a rule:
We should seek then virtue,—love;
Virtue reigns supreme above.

THOUGHTS ON THE PROGRESSIVE IMPROVEMENTS IN SCOTLAND.

NIL desperandum ſhould be the motto of every perſon who wiſhes to promote the welfare of his country; for though a proposal for improvement may be overlooked fifty times, yet if it be again and again brought forward, if it be well founded, it will at last come to be adopted. Nothing can be ſo unlucky for a person who speculates on subjects of national aggrandiſement, as a pettiſh temper, which becomes hurt at neglect from those who know leſs, but may be able to do more than one's self. Let the idea be thrown out whenever it occurs; it will be like seed scattered upon the ground. It may sometimes fall upon stones, and produce nothing; but at other times it may fall upon a fertile soil, which will produce fruits abundantly. Never despair, therefore: what has been overlooked at one time, may be taken up with ardour at another, if it be brought forward with a proper degree of modesty, and the benefits that would result from it, explained with perspicuity.

Provost Drummond, whose memory ought to be revered by the inhabitants of Edinburgh, will afford an example for illustrating this proposition. This gentleman proposed an immense number of improvements on this place, that have been since executed with great facility, though few of them could be carried into effect in his own time. The infirmary was almost the only public work of considerable magnitude of his own projecting, that he himself lived to see carried into effect. But the north and south bridges; the new town; the register office; the new college; and almost every other improvement that has

since taken place in Edinburgh, were first proposed by him; though he found it impoſsible to get his plans attended to. They were all considered as being so expensive, and so much beyond the powers of this country to carry into execution, as scarcely to deserve a moment's attention from any one. It is above thirty years since he caused a model of Edinburgh, to be executed with his proposed improvements, which is now lodged in the Society of Antiquaries in Edinburgh; by which it appears, that his plans were not one-fourth part so fine as those that have been since actually carried into effect. The powers of men in a free state can never be known till they be put to the trial.

In many other departments, the effective powers of a free nation, have, in like manner, been found infinitely to surpaſs expectation. I remember the time when it was seriously debated, whether a turnpike should be erected on the road leading between Glasgow and Edinburgh; because it was apprehended, that all the money collected by it would not be sufficient to pay the toll-gatherer for his attendance. In like manner the canal between the Forth and the Clyde, after having been proposed many years, was at last begun; but from a dread that the lockage dues would never be equal to the interest of the money expended upon it, the funds fell short; the work stopped before it could be of any use. And had not government at that time advanced some money to help it forward, it is a great chance if it ever could have been completed. It is now found to be a most beneficial concern. In like manner, the Crinan canal has been often mentioned; and the idea of it as often abandoned as impracticable; till now, that in the space of a few months, more money has been subscribed for that purpose than the estimated expence amounts to: nor have I the smallest

doubt, but it will be found to be a very lucrative project to the undertakers. The grand canal between Inverneſs and Fort William, has been an object of speculation for centuries. The time approaches when it will no longer be a *ſpeculative* project; and the canal between the Clyde and Edinburgh, which if it had been proposed thirty years ago, would have been judged nearly as impracticable as to erect a bridge to the moon, requires only to be accurately ſurveyed, I had almoſt ſaid, to be carried into practice. For if a man of ſkill ſhall declare it to be practicable, I have no doubt but money would be found to effect the whole, almoſt as ſoon as the ſubſcription could be opened; for the immenſe quantities of coal, and iron, and other weighty commodities, that lie in the track of that canal, offer a proſpect of ſuch an active traffic along it, as muſt afford the moſt encouraging proſpect of abundant returns to the adventurers in that project.

The French have an excellent expreſſion, which they apply to the exertions of men who go beyond whatever was expected of them; *il fait l'impoſſible.* In the ſame ſpirit, we may ſay theſe are a few of the *impoſſible* things that we have actually ſeen executed, with a few others that are in view. But there are an infinity of others that our deſcendants will ſee executed, (if they ſhall be wiſe enough to be contented with liberty and property,) which we have not even got a glimpſe of as yet. By means of canals, in particular, much remains to be done; and I ſhould not be ſurpriſed, if, in a century hence, there ſhould ſcarcely be a farm in the kingdom, from whence its produce could not be carried to market by water; in which way a ſingle horſe could draw as much as ſome hundreds could have carried in the manner I recollect to have ſeen univerſally practiſed even in my own time. The wealth and induſtry this would diffuſe through the country,

cannot by us at present be conceived. Allow me here to add a few explanations on a subject, that has scarcely yet obtained any ſhare of the attention of the people of this country.

It has been unfortunately a prevailing notion in Scotland, that a canal can be of little utility, unleſs it ſhall terminate somewhere at a sea port town, and communicate directly with the sea. And therefore it has been supposed, that no communication by water can be eſtabliſhed from any place that is considerably elevated above the level of the sea, unleſs at an extravagant expence of multiplied lockages; which is not only inconvenient on account of the charge of locks, but is often impracticable from a want of water ſufficient to supply the waste that these locks neceſsarily occasion. It is, however, most certain, that innumerable benefits may be derived from small canals, *carried on a level* from town to town, in the internal parts of the country; or even from a market town to a country fertile in corn, or abounding in coals, or other valuable articles, even where they are much above the level of the sea. A ditch of six or eight feet wide, and three or four feet deep, could be executed at a very small charge; and might be carried, in a level direction, even along the sides of declivities, as is done with mill leads in innumerable ſituations; along which might be carried to market all the productions of agriculture, and other weighty articles, at a very small charge. I will not at present stop on this head longer, than barely to ſuggeſt the idea, and illuſtrate it by a ſingle example, leaving the farther conſideration of it to a future period.

Some years ago, the gentlemen in the county of Forfar, remarking that there is a large level valley extends from Perth to Arbroath, beyond the ridge of hills that lie behind Dundee; and that in particular between Forfar

and Arbroath, was nearly one continued chain of fresh water locks, with little declivity; they thought that a canal might be there executed at a small expence. But upon making the survey, they found that the rise between the sea at Arbroath and Forfar, was about one hundred feet, which would occasion a considerable expence in locks. On which account the undertaking was abandoned for that time, and the plans, and estimate of the work, were lodged in the archives of the city of Dundee, where they now are.

If, however, instead of leading the proposed canal directly into the sea, it had been carried along towards Arbroath, upon a level with the town of Forfar, it could have been brought within about one hundred yards of the town and harbour of Arbroath; where, if proper warehouses were erected, the goods could be stored till opportunities offered to ship them off, if they were going by sea; and if they were intended for the use of the town, they could be as easily conveyed from thence, as if they had been landed at the quay; and if goods are to be landed from a ship, to supply the internal demand of the country, they might be as easily lodged in these storehouses as any where else; so that scarcely any expence could be incurred in this case, that would have been saved, had the canal landed in the harbour itself. For it must be a very extensive trade, indeed, that could keep vessels constantly lying by, either for receiving the goods that may be sent, or for supplying those that may be wanted in return; so that a canal thus conducted would be nearly as convenient as if it had terminated in the harbour itself.

Nor is this all the advantage that would be derived from a canal, conducted on the plan above mentioned. If the canal had thus been brought to the neigbourhood of Arbroath, it might have been carried forward on the same

level, at little expence, to Dundee; and thus would have opened a ready communication between every farm on the whole route from Forfar, to Arbroath and Dundee, to either of these market towns, that might best have suited the conveniency and interest of the farmer. Not only so, but by a little extension of the same plan, it might have been continued westward from Forfar to Perth; so that through all that level and fertile strath, which by reason of hills and bad roads, is now nearly cut off from the best markets, the farmers would then be at liberty to choose either Forfar, Cupar, Perth, Arbroath, or Dundee, as best suited their convenience; and if this were done, by sending off another branch from Forfar towards Montrose, by Brechin, an extensive communication could be opened up through one of the finest parts in Scotland, with valuable markets; for want of which the value of that country has never yet been brought, perhaps, to one tenth part of what it might easily be*.

I know that, at the present moment, these ideas will be deemed chimerical; but I know, also, that before half a century be paſsed, all this, and much more, will be carried into effect: and then people will wonder how they ſhould have been so slow to adopt such easy and such important improvements. Let it not be forgotten, that at this present moment, the gentlemen of Aberdeenſhire, who are among the most sensible claſs of country gentlemen in Scotland, and who have led the way to all Scotland in many important improvements, are still so blind to their own interest, as steadily to oppose a turnpike act in that county. They are, in this respect, on the same footing as those in the ſhire of Edinburgh were about forty years ago; for there, it was then universally believed among the popu-

* It is unneceſsary here to state the means of overcoming small difficulties that would occur in the execution of this plan.

lace that turnpikes would prove ruinous to the farmer. Experience has now taught them, that so far is this from having been the case, that it has been the greatest bleſsing to them that ever was conferred upon them. Yet with this example before them, the otherwise enlightened gentlemen in Aberdeenſhire, choose to ſhut their eyes. Their eyes will however be opened in spite of these prejudices; and they will then experience the benefits of improvements, which might have taken place long ago. Knowledge among men is no where intuitive; it is always progreſsive: but among a free people, nothing can prevent that progreſsion; and it is upon this principle I rely.

One word more, and I terminate this speculation. Economy is of great utility in agriculture and arts; and the leſs expence that is thrown out on any undertaking of the kind here proposed, the better. It is easy to construct a veſsel of six feet in width, that would draw no more than from one to two feet water, which might carry twenty tons burden, if neceſsary; and which might easily be drawn by a single horse. Few farmers can have occasion for a boat above half this size; and it could be built nearly for the same price as a good cart costs at present. For facilitating the paſsage of one boat past another, till the repair on the canal became very considerable, niches, the length of one of the boats, cut out on the side of the canal at convenient distances, could be made at little expence so as to permit one boat to paſs another easily, even where the boat was nearly the whole breadth of the canal.

SINGULAR EFFECTS OF LOVE, A CURIOUS ANECDOTE.

NOTHING discovers more plainly that man was created by nature a social animal, than that sympathetic affec-

tion between the sexes, so universally experienced, which we have called love. This sensation differs from the mere sexual appetite in many respects, and is a generous affection of the mind, which seeks its own gratification by promoting the happineſs of the beloved object, in every poſsible way. This is one of those instinctive impreſsions, that have been originally stamped upon the human mind, by the bountiful Creator of this universe, for beneficent purposes, and is by no means dependent on reason on the one hand, or animal appetite on the other; for the reasoning faculty may be strong, and the animal appetite violent, where love, in the true meaning of the term, is scarcely felt. It depends upon the tender feelings of the heart alone, which give rise to an innumerable variety of pleasures and of pains, that are totally beyond the reach of reason to comprehend, and produces effects that never could have been conceived poſsible, had reason alone been to judge.

Among the innumerable caprices of this powerful affection of the mind, the following is one of the most singular I have met with.

When Francis 1. was made a priſoner at Pavia, a gentleman named *Beauregard* was one of those who were obliged to save themselves by flight: he did not wiſh to return to France during that period of humiliating depreſsion which it experienced on that occasion, but stopped at Turin. There he soon became enamoured of a beautiful widow, called Aurelia. Beauregard was an accompliſhed gentleman; he had a vigorous mind, and a sound understanding; he was young, and had a figure and addreſs that were universally attractive. Aurelia, on her part, was equally engaging: ſhe was one of those striking beauties, beside whom others disappear. Beauregard became desperately in love with her. Aurelia would not

listen to his suit. She reproached him with being a Frenchman whose volatility and indiscretion were notorious, to a proverb. Beauregard assured her that he was exempt from those failings, and that he was capable of making the greatest efforts, to prove the sincerity of his love. Well, then, said Aurelia, I desire that you shall remain mute for one year. Beauregard spoke to her from that moment only by signs. When he returned home, he only explained himself by signs to his servants. All the world believed he had lost the power of speech, and bewailed his misfortune. The physicians who were called in to his assistance, prescribed medicines; which he declined to take. He went to see Aurelia, but still explained himself by signs only. He often put his hand upon his heart, and pointed to her fine eyes as the cause of his malady. Aurelia did not appear to be touched with his situation; she ordered him not to see her more. Mournful he departed for France. Francis I. having by that time recovered his liberty, Beauregard was known to him when he appeared at court. Francis, who esteemed him, sent his own physicians to attend him; who prescribed several remedies. He feigned to listen to them; but, as he was not cured, empirics began to offer their assistance; but he behaved to them as he had done to the regular physicians, and all their efforts were vain. At last a stranger lady arrived, who boasted of being possessed of powerful secrets in the medical art, presented herself before Francis, as a woman who had performed extraordinary cures; who even had restored the dead to life, as Molliere says. Her beauty surprised that monarch, who was by no means an enemy to beautiful women. He commanded Beauregard to be brought; who was no less struck than his majesty at the sight of this fair empiric. "To show you, (said she to the king,) what is the virtue I possess, I will effect the cure by a single word.

Speak! (said she to Beauregard.) The tongue of the cavalier was immediately untied. It was Aurelia herself!—who being now convinced of the sincerity of her lover, judged that he was in every respect deserving of her love; which she conferred upon him with equal sincerity. These two lovers recounted their history to the king; the conclusion of which was a marriage, that gave as universal satisfaction to the king, and his court, as to the parties themselves.

Unamour vrai, sans feinte and sans caprice,
Est, en effet, le plus grand frein du vice,
Dans ces liens qui sait se retenir,
Est honête homme, ou va le devenir. VOLTAIRE.

TO THE READERS OF THE BEE.

THE Editor takes this opportunity of informing his readers, that he has been favoured in the most obliging manner, with a set of elegant coloured drawings of the birds, plants, and fishes of Botany Bay *, done from the life upon the spot, by a gentleman of high military rank, who resided in that country about three years. These amount to more than an hundred drawings, most of them exhibiting specimens of objects of singular beauty and elegance, many of which are extremely different from any other known species. These the Editor proposes to have engraved for the Bee with all convenient speed. Some of the drawings are now in the hands of the engraver, and he hopes to be able to give his readers a specimen of them in the course of the present volume.

He has been likewise favoured by his correspondents with several specimens of singular nondescript animals, from India, and other places abroad; and others he has reason to believe, are forwarding hither from various

* New South Wales is the proper name; but as the other is as well understood and more easily pronounced, it seems to be the preferable phrase.

other places; so that he has every reason to expect an inexhaustible supply of articles of this nature, much greater than the low price of his miscellany can permit him to delineate. These, however, he will take care to insert as often as poſsible; so that although these will not much encroach on the room appropriated to other articles, he thinks he can promise to treat the lovers of natural history with an uninterrupted supply of original articles of this kind, that is not to be found in any other miscellaneous publication in Europe.

Some of his friends who have seen the drawings, and admire the singular beauty of the objects, and brilliancy of their colours, have expreſsed a wiſh that he could accommodate such of his readers as might choose it, with a set of coloured prints. He has it therefore in contemplation, to offer a specimen of these to his readers, if he finds it can be done in this place. This will make no difference in price to those who choose the uncoloured plates, though a reasonable rise of price will be neceſsary from those who ſhall incline to have them coloured. Of these terms he will be able to speak when he presents the specimen.

But though he intends to comply with the wiſhes of many of his readers, in thus appropriating a small ſhare of his work to curious articles in the line of natural history, it is by no means his intention to dedicate more than a reasonable proportion of his work to that object; so that every other interesting object of discuſsion, will be continued as occasion requires.

It is but justice to himself, however, to remark, that on account of a very considerable rise in the price of paper, that has just now taken place, as well as of almost every other article in the printing line, the profits on the same extent of sales are now considerably leſs than at the commencement of this work. Yet, grateful for the favour he has received from an indulgent public, he is desirous of

making every return in his power; nor is he afraid but, with the continuance of their favour, and a due regard to punctual payments, he ſhall be enabled to continue to furniſh this work at the same rate as formerly.

ACCOUNT OF A REMARKABLE DWARF.

JEFFERY HUDON, a famous dwarf, was born at Oakham in Rutlandſhire, in 1619. He was in the family of the then duke of Buckingham, at seven years of age, at which time his stature did not exceed eighteen inches; and to divert the court, where that nobleman entertained at Burleigh on the hill, he was served up to table in a cold pye. He was afterwards presented to Henrietta Maria, queen consort to king Charles I. and was often employed by her on meſsages abroad. His size never exceeded three feet nine inches. His courage, however, far exceeded the dimensions of his body; for upon the breaking out of the rebellion, he became a captain of horse. When the queen was forced out of England, he attended her to France; from whence he was baniſhed for killing Mr Croft, brother to the lord of that name; and going to sea, he was taken by a Turkiſh corsair and sold for a slave, in which state he remained many years. Being afterwards redeemed, he returned to England, and in the time of Oates's plot, was taken up, and committed prisoner to the gatehouse for a considerable time. He died in the year 1678.

A REMARKABLE INSTANCE OF LONGEVITY.

HENRY JENKINS, who lived to the age of 170, was born in the north riding of Yorkſhire. Two years before his death, which happened in 1670, he was able to bind ſheaves after the reapers. As there was no register old enough to evidence the time of his birth, it was gathered

from the following circumstance. Being asked whether he remembered the battle of Flodden (which he called Plowden,) he answered in the affirmative; and gave as good an account of it as could be expected, considering that he was then, as he said, only twelve years of age. This battle was fought in 1513. Besides this, there were in his neighbourhood several persons about 100 years old, who all agreed, that from their earliest remembrance Harry Jenkins was looked upon as an old man. In the last century of his life, he followed the employment of a fisherman; and when 157 years of age, he went to York assizes, where his evidence was allowed of, in an affair of 140 years standing. His sight and hearing continued to the last.

TO CORRESPONDENTS.

THE various and important lucubrations of *Ascanius* are received, and shall appear with first convenience.

The very interesting memoirs of *count Hertzsberg*, the great minister of Frederick, are thankfully received, and shall be inserted with the earliest opportunity.

The prophecy by *Thomas* the *Rymer* has no fault, but that of being rather long; but we will try to get a place for it.

The biographical sketches of *Jamesone* the painter are highly acceptable.

The account of the Jersey method of thatching houses is received, and shall be inserted as soon as possible.

The lines by *R. F.* have appeared in print, perhaps five hundred times, so as to be known by every school boy.

The communication by *G. S.* is come to hand and under consideration. In general, violent panegyric is not consistent with truth; and when applied to a minister, however much it may please his partisans at the time he is in power, seldom is so much relished at a future period.

The lines from *Arstala* are also under consideration.

The short account of *Kumbuskenneth* is also come to hand, and shall be inserted as soon as room can be spared for it.

The account of the *Colymbus Immer* is thankfully received. Could a specimen of the bird be obtained from whence an accurate drawing could be made, it would prove very acceptable.

The obliging communication by *E. O. I.* is thankfully received.

The interesting and well timed communication by *Nerva* is just received, and shall have a place the very first opportunity.